

CENTRAL INTELLIGENCE AGENCY

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USSR

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SUBJECT

Ukrainian Railways/Rolling Stock/Ties/
Fish Plates/Passenger Train Personnel

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THIS IS UNEVALUATED INFORMATION

1. Railroad time

- a. The railway lines, of consequence in the Ukraine, were all supported by wooden ties. We had no metal or concrete - only wood. Railroad ties used in the Ukraine were always creosoted at plants specifically designed for such endeavor. There were two such plants in the Southwestern USSR, one located in Dnepropetrovsk proper and the other near the Petrovski plant, north of the city. The latter plant (near Petrovski) in 1943 was moved by the Germans to the left bank of the Dnieper at Nishne-Amur, Dnepropetrovsk. Creosoting plants in the USSR are called spalno propitochni zavodi [tie saturating plants]. Ties in the area were derived primarily from sosna [pine].
- b. Ties were not generally preadzed. Such adzing as was necessary was effected at the time the tie was laid under the rail and kastiia [spikes] were to be driven. [redacted] having ever seen any prebored ties. Above [redacted] ties were not generally preadzed, however, when new lines of any length were laid, some preadzing had been done at the tie factories.
- c. In 1940 when heavy lines were laid in the Donbas region and old lines rebuilt, all the ties on the existing lines were replaced by new ones.

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- d. Large numbers of spare ties were always stored at various rail sidings along the main lines at Sinelnikovo and Dnepropetrovsk.

2. Ballast

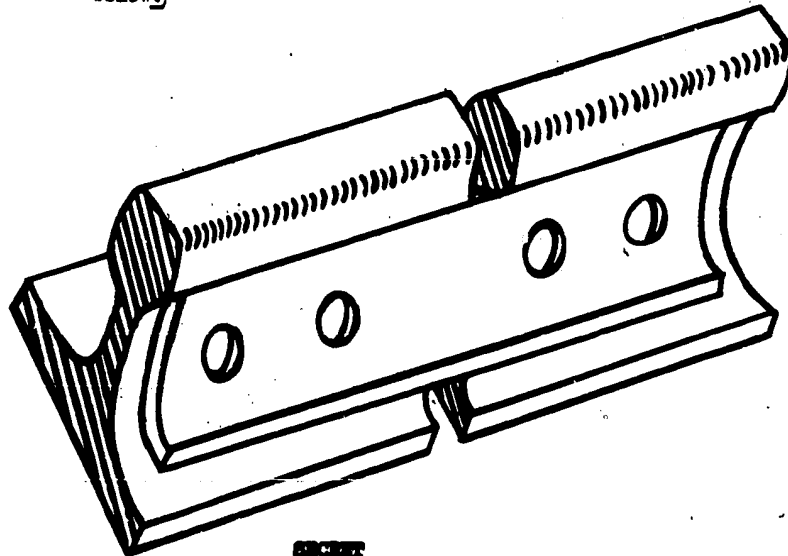
- a. Prior to 1940 ballast in the Donbas region was essentially composed of sand, with a little granite. Sometimes rakushke /cockle-shells/ were hauled from the sea coast and used as ballast. In 1940, however, the Sinelnikovo-Uzel /sig/ Donbas line was reconstructed. Heavy ties were used with only granite ballast tamped between them.
- b. The Merefa Kherson line - heavy granite ballast.
The Uzlovaya-Donbas line - heavy granite ballast.

3. Tie-spacing

- a. On the Merefa Kherson line ties were spaced at approximately 24 inch intervals. I would estimate that there were close to 1600 ties per kilometer on this line.
- b. The main line Chaplino-Smelnikovo-Dnepropetrovsk-Kiev, which carried heavy freight traffic, necessitated closer tie spacing. The ties on this line were spaced about 12 to 14 inches apart and averaged out close to three thousand per kilometer. /Granite ballast for entire distance on the above line./

4. Rails

- a. Rails used in the region up to the time [redacted] Vinjol type. There were three types of Vinjol rails. They were as follows:
- (1) The type called 1A was the smallest. It was used only for spur lines to plants and very little used rail sidings.
 - (2) The type called 2A was medium sized. Prior to reconstruction in 1937 it was used on secondary lines. By 1943, however, it was used on branch lines where light traffic passed.
 - (3) The largest rails were called type 3A. These rails were used on the magistral /main lines/ [redacted] the use of 3A rails prior to 1937 with the advent of such heavy locomotives as the Felix Derzhinsky. /See diagram below./



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- b. [redacted] indirectly that Soviet railway engineers were contemplating the need for rails larger and heavier than 3A Vinicol. [redacted] that such rails are in existence and in use in the USSR today.

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- c. After the Felix Derzhinsky was introduced, in either 1931 or 1932, considerable rail and tie replacement was begun. The last rail and tie replacement that [redacted] in the southwest USSR took place in 1940. However, when the German forces occupied the area during World War II, they found it necessary to revise the railway lines. In order to use German rolling stock it was necessary for them to draw the rails closer together since German equipment is slightly narrower in gauge.

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5. Fuel

- a. Up to 1943 all the freight locomotives, such as the Felix Derzhinsky, the Joseph Stalin, the Shchukin and the Eh Hovski burned coal.

6. Passenger traffic and schedules

- a. Kiev to Uzlovaya: Seven hundred kilometers - the distance was traversed in approximately 20 hours in the early thirties.

- b. Dnepropetrovsk to Kharkov - about three hundred kilometers: This distance consumes approximately five hours. Up to 1939 [redacted] the Sormusky Usilni locomotive was utilized.

- c. Dnepropetrovsk - Kharkov - Kursk - Moscow: Up to 1940 passenger trains for Moscow, via the above route, departed from Dnepropetrovsk at four o'clock in the afternoon and arrived in Moscow at 12 o'clock midnight. From Dnepropetrovsk to Kongrad [redacted] the Sormusky Usilni Locomotive was employed. At Kongrad a Joseph Stalin Locomotive replaced the Sormusky Usilni and continued the haul to Moscow. [redacted]

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- d. Dnepropetrovsk - Sinelnikovo - Melitopol - Sevastopol: The last time [redacted] the schedule was approximately as follows: the passenger train, drawn by a Sormusky Usilni Locomotive, departed from Dnepropetrovsk at 6:00 pm and arrived in Sevastopol at 10:00 am the following morning.

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7. Pay loads and traffic

- a. The Felix Derzhinsky Locomotives in the Ukraine normally draw 60 loaded, four axle vagonnes [redacted] boxcars. [redacted] the boxcars net weight as printed on the outside of the cars was one thousand poods [redacted] slightly over 13 tons.

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- b. Merafa - Kherson: There is one rail line carrying freight in each direction between these points. During the daylight hours [redacted] freight trains passing in each direction at about 45 minute intervals.

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8. Personnel and passengers

- a. Normally (before World War II), a passenger car carried about 72 passengers. The sleeper cars were provided with sleeping space for 56 passengers - with six passengers per compartment. [redacted] Collector's Note: In the northwestern USSR the Mezhdunarodni Vagonne (International Car), [redacted] from Murmansk to Moscow, was provided with only four beds per compartment (two uppers and two lowers). The beds in Soviet sleepers were laid opposite from the US types. That is, they were laid parallel to the axles, not parallel to the windows and door.]

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- b. One provednik [redacted] conductor is assigned to each passenger car. He checks all tickets, handles lighting, assigns sleepers, and checks lavatories.

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He rechecks all tickets at major stations and assigns seats to new passengers. Sometimes he issues a receipt for passenger tickets for less than a days' run, sometimes he doesn't.

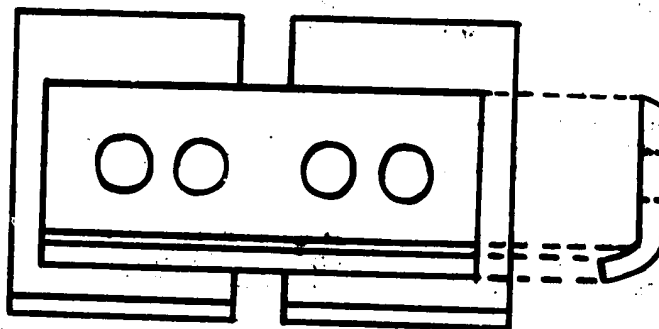
- c. Prior to World War II the average passenger train carried 14 passenger cars.
- d. All Ukrainian passenger trains carried an Oberst or Ober Provodnik Chief Conductor. He was charged with the responsibility of the entire train. Among his duties he controlled and directed the work of all provodniki and also exercised control over the engineer, in so far as the passenger cars were concerned. The position of Ober-Providnik in the USSR railway system is considered a very responsible one, consequently, the Ober is usually the most informed railway man on the entire train. The Ober is in possession of a whistle with which he gives the departure signal at railway stations. The engineer cannot start the train until the Ober has signalled by blowing the whistle.
- e. Personnel on passenger locomotives consist of the mashinista engineer and a kachegar fireman. Sometimes a pomoznik assistant is added to the above personnel - but only when automatic stokers are not used.

9. Locomotive repair

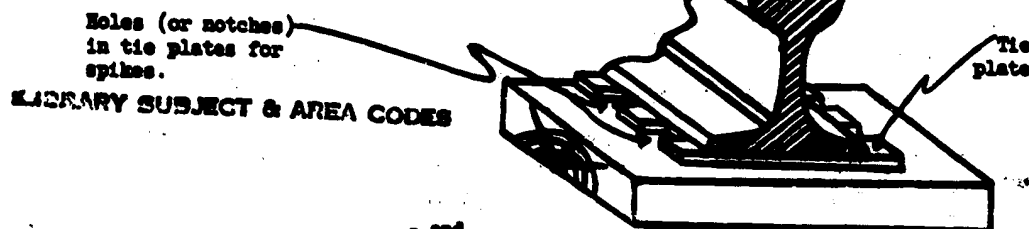
- a. [redacted] but believe [redacted] were inspected every one and a half to two years. [redacted] the outer surface of the trucks for both freight and passenger locomotives in the center were painted white. Dates of last repair and inspection were printed over the white paint.

10. Fish plates, spikes and tie plates

- a. [redacted] there were two kastiles spikes on either side of the rail on all main lines. The spikes were at least six inches long and 3/48 an inch thick. They were driven into the ties with spike mauls.
- b. The na kladke fish plates, [redacted] were all of the four hole type - two holes per rail. See diagram below and diagram on page two.



- c. Pod kladke tie plates were also four holers - two to the outer side of the rail and two on the inner side.



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